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Diffracting learning/teaching entanglements: A South African vice-chancellor's perspective

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Introduction

This chapter considers data from interviews conducted with eight vice-chancellors from both historically advantaged and disadvantaged higher education institutions (HEIs) in South Africa, as part of a larger national project on professional development of teaching and learning. It hones in on one particular interview which was a 'hot spot' and which 'glowed' (MacLure 2013) during data analysis. The perspective of vice-chancellors on learning to teach is important for providing insights into the broader context in which the process of learning to teach takes place. This is because it is vice-chancellors who are affected by both past and current policies and discourses, while also being pivotal in affecting and being affected by institutional enablements and constraints regarding learning to teach. The material discursive in terms of past and present sociopolitical discourses and policies, as well as access to resources, deeply affect learning to teach at both a systemic and institutional level. Vice-chancellors find themselves at the interface between these national and international discourses, policies, and practices as part of their specific university environments where these discourses and policies are enacted. These entanglements dynamically reconfigure learning to teach in higher education.

Before this chapter was formally written, Wendy McMillan passed away unexpectedly, on 23 December 2015. Dates had been set in January 2016 to write this chapter together and it is with great sadness that I now have to write this chapter without Wendy's vibrant physical presence – engaging, provoking, interrogating, encouraging, and always taking responsibility for keeping us on the track of writing. The ideas for this chapter come from the intensities and materialities of our meetings during 2015, the physical settings of Mont Fleur conference centre, Common Ground cafe and the University of the Western Cape Social Sciences Building, Wendy's orderly hard copies of all texts and transcripts, my MacBook Air, our verbal and written musings and contestations, which were all part of the inventive provocations and inspirations for this chapter. Wendy's careful attentiveness to fine details and doing justice to texts through doing close readings, looking for differences that matter, exemplifies Barad's diffractive methodology (Barad 2007), which is used in this chapter. All these entangled doings, beings and becomings are what made her a wonderful academic companion with whom to work. In 2015 we spent quite a few hours reading Karen Barad's work and the eight interviews of the vice-chancellors together, and this chapter builds on those discussions, although with the theft of my computer on Friday 23 October 2015 much of our initial analysis of the interviews was lost to us. Thereafter, in December 2015 we had

to re-peruse all the interviews in preparation for a conference presentation on vice-chancellors' interviews at the Society for Research in Higher Education (SRHE) in December 2015, which I presented on our behalf, and a large part of this paper is based on that presentation. We alighted on one particular vice-chancellor's interview, which we read diffractively through both Barad's work and through social justice concerns in South African higher education – this for us was the data 'hot spot' which 'glowed' (MacLure 2013).

Barad's quantum physics and queer theory helps me to come to terms with the vacuum of Wendy's passing as it enables me to try to understand in/determinacy and dis/continuity of space, time and matter (spacetimemattering) and the liveliness of non/being and how 'self' and identity are queered (Barad 2012), becoming undone (Grosz 2011). This chapter also shows how, despite Wendy's physical absence while writing this, the past and future are always already there in the present and how our beings and thoughts are always already entangled with each other, helping to constitute and reconstitute the becomings of this chapter.

The focus of this chapter is on issues of social justice in teaching and learning and learning to teach in South African higher education. A feminist new materialist theoretical perspective is used to illuminate these issues through the analysis of an interview conducted with one of the eight vice-chancellors who took part in a larger study on professionalising teaching and learning, referred to in other chapters of this book. The chapter is structured in the following way: Firstly, there is a short description of the higher education landscape in the South African context focusing particularly on issues of inequity and social justice in the current context. This is followed by a description of the theoretical framework used in the chapter – new feminist materialism, then by a short section on the methodology used – feminist new materialisms – for the analysis of the data for this chapter. The data was collected as part of the larger study on which this chapter is based. Excerpts from one interview, as data which 'glowed' (MacLure 2013) are then presented and discussed in relation to issues of social justice focusing on affirmative and productive possibilities for learning to teach in South African higher education.

The continued inequalities of South African higher education

On 13 January 2016 the vice-chancellors, principals and rectors representing all 26 higher education institutions in South Africa issued a joint statement regarding their commitment to continuing widening access for quality higher education for all students and the socio-economic transformation of South African higher education institutions towards the constitution of the country (Universities South Africa 2016). This was in response to the #feesmustfall movement and studentled protests which swept through South African higher education in the latter part of 2015, disrupting examinations and the academic programmes at these institutions. The #feesmustfall movement, which is continuing action and protests into 2016, continues its focus on equitable access to higher education, especially for those students who experience race and class barriers to gaining access (Nicolson 2016). The joint statement by the vice-chancellors also calls on the state to make provision for adequate fi nancial aid for students and for more adequate subsidisation of the higher education sector, as well as a recognition that this sector has been underfunded by the state.

These concerns, expressed by the vice-chancellors about the higher education sector as a whole, are important to note. However, the differences that exist within the higher education system between the institutions are not mentioned in this joint statement. This omission serves to elide the realities of continuing discrepancies that exist between institutions. Bozalek & Boughey (2012) and Cooper (2015) have written about issues of social justice affecting South African HEIs and the stark inequities that continue to exist between these institutions, following the apartheid legacy during which time many of these institutions were set up. The ways in which this is made manifest is that those institutions which were historically disadvantaged continue to struggle with paucity of funding, geopolitical positioning, human and material resources. In addition to these difficult conditions for learning to teach in these institutions, the students who apply to these institutions are generally the least academically prepared for university study, and the most economically impoverished students (see the study by Breier (2010) for example). There is thus a double dis/advantage in South African higher education. Those institutions with resources – many of them historically white institutions from the apartheid era – attract and recruit the top performing students in the system and have the resources to attract academics who are highly regarded (Boughey & McKenna 2011). They also have much lower student–staff ratios – what is known as the full-time equivalent (FTE) ratio in South Africa. Thus, despite the heady enthusiasm in which policies were developed for higher education towards the demise of apartheid in the early and mid 1990s (see the White Paper 3: A programme for the transformation of higher education (Department of Education 1997)), the imagined future of changed demographics and conditions of universities has not come to fruition – it was envisaged that HEIs would be less monocultural and more mixed in terms of race and class. The sobering picture of higher education is evident in the table below, which appears in Cooper's (2015) article on social justice and South African student enrolment data trends, showing the continued racialisation of higher education institutions:

Table 3.1 23 universities – full-time equivalent (FTE) student enrolments according to 'race' and year – 2008 compared to 2012

	University	*White*		*Indian*		*Coloured*		*African (S African)*		*Foreign & Unknown*		*Total*	*Total*
		2008	*2012*	*2008*	*2012*	*2008*	*2012*	*2008*	*2012*	*2008*	*2012*	*2008*	*2012*
1	Pretoria	59%	54%	4%	4%	2%	2%	28%	32%	7%	8%	100%	100%
2	Cape Town (UCT)	39%	34%	7%	7%	15%	13%	19%	23%	20%	23%	100%	100%
3	Kwazulu-Natal (UKZN)	12%	7%	35%	29%	3%	2%	43%	56%	7%	6%	100%	100%
4	Stellenbosch	69%	68%	1%	2%	16%	15%	7%	8%	7%	8%	100%	100%
5	Witwatersrand (WITS)	30%	24%	15%	13%	3%	3%	43%	51%	9%	9%	100%	100%
6	North West (North W)	56%	47%	1%	1%	3%	3%	36%	46%	3%	3%	100%	100%
7	Johannesburg	24%	13%	5%	4%	3%	3%	64%	74%	4%	5%	100%	100%
8	South Africa (UNISA)	22%	17%	8%	7%	5%	4%	55%	64%	10%	9%	100%	100%
9	Free State	37%	33%	1%	1%	5%	5%	49%	56%	8%	6%	100%	100%
10	Nelson Mandela (NMMU)	27%	25%	2%	1%	14%	14%	47%	52%	10%	7%	100%	100%
11	Western Cape (UWC)	4%	4%	7%	5%	48%	46%	32%	36%	9%	9%	100%	100%
12	Rhodes	43%	38%	3%	3%	3%	3%	28%	33%	23%	22%	100%	100%
13	Limpopo	1%	1%	1%	1%	0%	0%	96%	96%	3%	2%	100%	100%
14	Cape Peninsula (Technology)	17%	14%	1%	1%	33%	29%	42%	48%	7%	9%	100%	100%
15	Tshwane UTechnology	9%	6%	0%	0%	1%	1%	85%	90%	4%	3%	100%	100%
16	Zululand	0%	0%	1%	0%	0%	0%	96%	99%	3%	0%	100%	100%
17	Fort Hare	5%	3%	1%	0%	2%	2%	76%	85%	16%	10%	100%	100%
18	Central UTechnology	14%	9%	0%	0%	3%	3%	77%	83%	6%	4%	100%	100%
19	Durban UTechnology	5%	3%	17%	13%	2%	2%	74%	80%	2%	2%	100%	100%
20	Vaal UTechnology	3%	2%	0%	0%	1%	2%	86%	88%	9%	8%	100%	100%
21	Venda	0%	0%	0%	0%	0%	0%	97%	93%	2%	7%	100%	100%
22	Walter Sisulu	0%	0%	0%	0%	0%	0%	98%	97%	1%	2%	100%	100%
23	Mangosuthu UTechnology	0%	0%	0%	0%	0%	0%	100%	99%	0%	1%	100%	100%
	Total	23%	20%	6%	5%	6%	7%	57%	62%	8%	6%	100%	100%

Source: Cooper (2015).

The above table divides HEIs in South Africa into three groups – five upper band, seven middle band and eleven lower band categories in terms of their research intensivity, indicated by postgraduate enrolments and staff publications. Cooper (2015) also shows how the continued socio-economic and racial inequalities are masked in official categorisations of HEIs in South Africa in the above table, which shows the figures of student enrolment in 2008 and 2012 in HEIs in these bands. Bearing in mind the percentages of racial groupings in South Africa in terms of apartheid racial categorisation: (79.2% black African, 8.9% white, 8.9% coloured, 2.5% Indian or Asian, 0.5% 'other') (South Africa.info n. d.), the racialised representation of students has not altered in ways which are anticipated in the Higher Education White Paper (Department of Education 1997). As can be noted in the table, the Universities of Pretoria and Stellenbosch continue to recruit large groups of white students, while the historically black or disadvantaged institutions, mainly represented in the third band are almost all populated by black African students. It is only the Universities of Technology in the third band that continue to enrol students from other racial categories, probably because they are merged institutions which amalgamated historically advantaged and disadvantaged institutions.

Cloete (2016) points out that South Africa is the only African country with a differentiated higher education system. The inequalities between HEIs in South Africa play a vital role in the ways in which teaching and learning and learning to teach is enacted in the various universities. The student-staff ratio, geographical location of the university, students' prior school background and preparedness for tertiary education, the physical and economic resources available to the staff and students, how these institutions are perceived by the public and their entanglements produce enabling or constraining conditions for learning to teach (Bozalek & Boughey 2012, Cooper 2015).

The next section outlines the conceptual framework used to analyse the data in this chapter.

Feminist new materialisms as a conceptual framework

This chapter uses feminist new materialisms as a conceptual framework for analysis of the data. Similar configurations of this framework include sociomaterialism, material feminism, new materialism, new feminist materialism, critical posthumanism, and affect theory, which are all relational ontologies. Theorists such as Karen Barad, Rosi Braidotti, Gilles Deleuze, Felix Guattari, Donna Haraway, Myra Hird, Vicky Kirby, Bruno Latour, Brian Massumi, Isabelle Stengers and Patricia Clough, among others, have been associated with these relational ontologies. What all of these theorists and configurations of approaches have in common is a focus on matter or materiality, a relational ontology, seeing difference as affirmative, and transdisciplinarity. A new feminist materialist perspective is a fruitful one for examining the data which are the focus of this chapter for a number of reasons. Firstly, because of its emphasis on the material, it enables a focus on all the aspects – human and nonhuman, that constitute the context in which the vice-chancellors operate and how learning to teach is affected by this. As Fenwick and Edwards point out in their framing

chapter of this section of the book 'a sociomaterial analysis also helps illustrate the more-than-human assemblings that perform knowledge in higher education'. Secondly, in its relational ontology, new feminist materialism facilitates an exploration of the connections and entanglements which play out between HEIs, policies, practices, and discourses, being threaded through each other. Thirdly, new feminist materialism allows us to move beyond human intention and consciousness, focusing instead on how the material and discursive are mutually constituted as material-discursive – with neither existing outside of the other. Humans, in their intra-actions, are part of the world and its becoming, rather than in the world. Karen Barad (2007) created the neologism 'intra-action' which she distinguishes from interaction, to describe her agential realist ontology, which is premised on the notion that entities do not pre-exist relationships but come into being through relationships. Thus, rather than seeing agency as existing within individuals as separate beings, intra-action assumes that agency emerges through enactments in mutual entanglements (Barad 2007, Pacini-Ketchabaw 2012). Thus, the vice-chancellors, who are the focus of this chapter, in their intra-actions, are part of the higher education environment rather than only being influenced by it or influencing it. Fourthly, new feminist materialism in its focus on an ethico-onto-epistemological perspective regards ethics, ontology and epistemology as inseparable (Barad 2007). Thus matters of concern cannot be separated from matters of fact in considering learning to teach. The injunction that 'matter' matters means that in exploring the material, the researcher is obligated to attend to the ethical (Latour 2004). Social justice is considered to be an important part of these ethical considerations in new feminist material accounts offered by Barad, Braidotti and Haraway, to name a few of these theorists (see Bozalek in press for more details of socially just pedagogies from a posthuman perspective). Concerns with social justice are particularly pertinent in relation to learning to teach in the South African higher education landscape, where issues of inequity continue to dominate, as has been illuminated in the previous section. The fifth and final reason we offer for the usefulness of a feminist materialist position is that it allows us to move beyond the confines of critique – as Bruno Latour (2004) put it 'critique has run out of steam' – which was noted by Fenwick and Edwards in the opening chapter of this section. Barad, MacLure and Latour all pose problems regarding the practice of critique, which tends to pit one point of view against another, undermining a particular position in favour of another. In an interview with Barad by Juelskjær & Schwennesen (2012), she refers to the epistemological damage done through this conception of critique. MacLure goes as far as calling it a 'sadistic enterprise' which 'divides, categorizes, objectifies and judges' (MacLure 2013, p. 14). Critique assumes a stance which is exterior, moralising and superior rather than seeing oneself as located as part of the phenomenon being investigated – this is why Barad proposes that 'critique doesn't have the kind of political traction that is so needed' (Juelskjær & Schwennesen 2012, p. 14). In place of critique we use a diffractive methodology, which examines the details of texts such as the interview data examined in this chapter, respectfully and with care, not setting up positions in opposition to each other, but rather reading one text through another in an attempt to create something new and develop inventive provocations (Barad 2007). As Barad (2014b, p. 154) notes, 'Doing theory requires being open to the world's aliveness, allowing oneself to be lured by curiosity, surprise, and wonder'.

Interviews with vice-chancellors

The interviews with the vice-chancellors were conducted at the eight HEIs which were part of the larger national South African research project investigating professional development in teaching and learning in South Africa. Table 3.2 below provides some detail of the institutions.

Each vice-chancellor was interviewed by a project member from a neighbouring institution, generally the Director of Teaching and Learning from that institution. They were asked about their personal vision, the strengths and accomplishments of their institutions regarding teaching and learning, the goals and priorities for staff development regarding teaching and learning, what systems were in place for this, how staff respond to professional development, and the factors that enable and constrain learning to teach professional development. Who the interviewer and interviewee were, the interview questions, as well as the physical setting of the interview, all intra-act as material-discursive practices, making certain responses possible, while excluding others (Pacini-Ketchabaw 2012).

As mentioned in the section above, we used a diffractive methodology to analyse the interviews, where insights from texts are read through one another. We first read through all the interviews ourselves, then together, noting particularly how the institution, where it was placed geographically and in terms of access to resources, the staff–student ratio and the feeder schools which the students came from, impacted on learning to teach. The insights from the interviews were read through a lens of social justice regarding learning to teach.
There was one interview in particular, however, which was what Maggie MacLure (2013, p. 661) calls a 'hot spot', where the data appears to glow, the detail of which 'arrests our gaze and makes us pause; the connections that start to fire up; the conversation that gets faster and more animated' (MacLure 2015, p. 662). This was one interview which confounded common sense by not falling conventionally into the stereotypes of institutional type – an interview of a vice chancellor at a merged University of Technology, who had an enlarged vision of what teaching and learning professional staff development and a university might look like. This was the text which had affective resonance, beckoning us – and to which we desired to return to again and again. Reading with this text provoked new ways of understanding the data of the other interviews with vice-chancellors. This new feminist materialist or diffractive reading of data is different in that the data itself becomes a constitutive force intra-acting with us in our reading these texts through the lenses of socially just pedagogies in South African higher education. Here data analysis can be regarded as 'an enactment amongst researchdata-participants-theory' (Mazzei 2013). Thus the object and agencies of observation are entangled and agentic – data is not something passive or dead, but a performative agent, transforming us and influencing our own becoming as researchers, the material and human forces intra-acting with and making themselves intelligible to each other (Barad 2007).

Table 3.2 Details of higher education institutions where vice-chancellors were interviewed

	Historical legacy (advantaged v. disadvantaged) (merged v. not merged)	*Focus*	*University type*	*Student population*	*Campuses*	*Urban v. rural*	*No of students (in 2010)*	*Permanent staff/ student ratio (2012)*	*Established*	*Student success rate (in 2009)*
1	Advantaged	Research	Traditional	Elite schools	3	Urban	25000	1:23	1829	84
2	Advantaged	Research	Traditional	Elite schools	4	Urban	27694	1:28	1881/1916	84
3	Advantaged	Research	Traditional	Elite schools	1	Rural	7274	1:21	1904	83
4	Disadvantaged	Teaching	Traditional	Disadvantaged schools	3	Urban	18031	1:32	1960	79
5	Disadvantaged Merged	Teaching	Traditional	Disadvantaged schools	3	Rural	11074	1:34	1916	79
6	Disadvantaged Merged	Teaching	Traditional	Disadvantaged schools	1	Rural	11000	1:32	1981	79
7	Advantaged and disadvantaged Merged	Teaching	University of Technology	Disadvantaged schools	8	Urban	36000	1:42	1960 and 1962	79
8	Advantaged and disadvantaged Merged	Teaching	University of Technology	Disadvantaged schools	8	Urban	23000	1:42	1956 and 1907	76

Source: Leibowitz, Bozalek, Winberg & van Schalkwyk, 2015

This way of looking at data is in contrast with coding of data, which reduces the complexity of details in the data, removing the researcher from the data, and creating closure and stasis through representational data categories, rather than an entanglement or becoming-with the data (MacLure 2013; Hultman & Lenz Taguchi 2010).

The next section will cover some of the insights we developed about learning to teach in South Africa through our intra-actions with South African texts on social justice and higher education and a close reading of the interview which emerged unpredictably as an intensity between us (Mazzei 2014), releasing us from the 'banality' of coding data (MacLure 2013, p.174).

The entanglement of HEIs

The first thing that glowed as a hot spot for us in the selected text of one of the vice-chancellors was the enlarged vision that was expressed in this interview, which was largely absent in other interviews with vice-chancellors. Other interviewees tended to focus exclusively on their own institutions, both in terms of their successes and constraints with regard to learning to teach in higher education. This interviewee, by contrast, had a conception of higher education as an entangled system where what is happening in one institution would inevitably mutually constitute practices of learning to teach at other institutions. While some vice-chancellors were disconcerted by their academic teaching and research staff being 'poached' by other institutions, this vice-chancellor had a much more relaxed approach. In fact, his approach veered towards what might be regarded as a 'radical openness' (Barad 2014b, p. 160), understanding that an academic who is valuable to one university would be of value to any other institution, and the whole of higher education as a system would not suffer if the person moved from one institution to another:

> And by the way, we are all part of the same system, so whether somebody is here or at HAIx, it's good for the system.

Thus his institution, which was poorly resourced and in need of good academics, would lose this academic, yet he was generous enough to see it as not a loss for his own institution, but as a circulation of expertise in higher education. In a similar vein, he showed awareness of the problems regarding the differentiated system of higher education – where some institutions are regarded as world-class and others as 'less than' – recognising that those that are recognised as 'worldclass' exist at the expense of those which are less valued. These institutions are entangled, where those regarded as 'other' – the HDIs – are inextricably bound to the 'world-class' institutions. An ethical position would recognise otherness in itself – something that the other interviewees who were vice-chancellors from HAIs found difficulty in doing. As Barad (2014b, p. 162) notes:

> Entanglements are relations of obligation – being bound to the other – enfolded traces of othering. Othering, the constitution of an 'Other,' entails an indebtedness to the 'Other,' who is irreducibly and materially bound to, threaded through, the 'self' – a

> diffraction/dispersion of identity. 'Otherness' is an entangled relation of difference (différance). Ethicality entails noncoincidence with oneself.

The views about the higher education system and its institutions expressed in the interview that we chose from the eight vice-chancellors take as their departure point a decolonising logic, where difference or alterity is seen as affirmative rather than as lack, as foreign or as negative. As the vice-chancellor expressed it:

> My view is that we don't need world-class universities – we need a worldclass university system. That actually you know, the excellence of a place like the University of X, fundamentally depends on other places functioning at a decent level because it's all about the pipeline.

The view of the HDI as an in/appropriated other (Trinh Minh-ha in Barad 2014a) provokes a rethinking of difference and relationality as difference within – thus those at the HAI or world-class university do not recognise the difference within. They do not see the HDI as a productive space, a space of creativity. Rather, they see it as an apartheid construction which is to be avoided or relegated to a less valued position as an institution in a differentiated system. The views of the interviewee we chose to focus on were out of the ordinary, in his specific choice to make a contribution to the in/appropriated other – in this case the merged University of Technology rather than an HAI, which he considered would not benefit to such an extent from his leadership:

> Seventy-five per cent of the students that come to our institution are firsttime learners in their families, higher education learners. The majority of them come from really financially stressed families. About 40% of our students have some form of financial aid and so on. So I mean, I was just saying to the people in Nutrition a few minutes ago that if I had a choice between being here as vice-chancellor or at HAIx, I'd probably choose my institution. Because what should I do at HAIx? You know, it's a functioning university.

He was quite open and happy to be making a contribution to his particular university, which was viewed as less than or the inappropriate/d other, and found no reason to be seeking out a more privileged space to enact his academic contributions. The choice of taking up the challenges of an HDI and a merged UoT was a deliberate choice to be in proximity with and taking forward the in/appropriated other.

Ethics and aesthetics – a holistic approach to teaching and learning to teach

Latour's (2004), Braidotti's (2013) and Barad's (2007) notion of moving beyond critical deconstruction and critique to alternative enactments of becoming, where power is not only seen as limiting but also as affirmative, has particular relevance for the way in which the interviewee saw teaching and learning. This provides the impetus for rethinking teaching and learning as an important practice that should be nourished, grown and cared for, something

that needs attentiveness to ascertain how teachers are flourishing and how courses are growing:

> and getting people to understand that we do actually cherish good learning and teaching, good teaching. That's the one side. The other side of course is a whole range of processes … to give us some sense of how courses are growing, you know how teachers are teaching [our emphasis added].

The interviewee was also unusual in his enlarged vision (Bozalek 2011, Young 2011) of what teaching at a University of Technology might entail and the sort of curriculum which may be possible to pursue. This was made visible in his expressed discipline in ethics and aesthetics as being important for education, rather than adhering to the expected technicist view of education in a UoT:

> you know if students are doing Engineering. Engineering might actually expect students to do a course on … I don't know … the ethics of engineering, or something on, what you call it, the place of beauty in Engineering or whatever … aesthetics of engineering.

Moving beyond binaries – teachers and learners

Moving beyond or rethinking dualisms or binary oppositions is one of the main tenets of posthumanism and new feminist materialist philosophies (Braidotti 2013).The vice-chancellor that we focused on was able to shift away from binary oppositions of teacher/learner and to view academics as learners as well as teachers. He also envisaged academics to be lifelong learners, encouraging them to engage in continuing learning and scholarly practice, and with scholarly knowledge:

> We really have to get the academics into a mode of becoming lifelong learners themselves … Academics as lifelong learners … it's not simply for them to get a doctorate, but it's to say to them we want you to start learning again. We want you to start engaging with new ideas.

His approach to learning to teach illuminates lifelong learning as a process of potentialities and becomings for academics, rather than a conventional professional development approach that could be construed as more limiting and instrumentalist. Seeing academics as lifelong learners is a more ontologically powerful way of conceiving learning to teach in that it is not viewed as a once off exercise but more of a freedom to follow new ways of thinking as part of a lifelong endeavour of constant engagement.

The materiality of social justice

In feminist new materialist approaches to data analysis, matter is seen as vital and vibrant and as having agency and as being 'mutually constituted' with the discursive (Barad 2007,

Lenz Taguchi 2013, Phillips & Larson 2013). With regards to social justice, learning to teach and higher education, the material and the discursive are thus imbricated in each other. It is also what the material does that matters rather than what it is – the energies and forces of transformation that emanate from matter (Coole 2014, Ingold 2014). It matters then that the student-staff ratio is much higher at some institutions, such as the one focused on in the interview which we were interpolated by:

> The difficulty of course is that, unlike HAIx and so on, where the staff/student ratios are still very low … about 1 to 17 is the kind of ratio. In certain faculties [here] it's more like 50 or something like that. So it's not an easy task to expect our staff members to complete their studies, well that's the way I'm looking at it.

Thus, the number of students to staff members directly affects the ability of academic staff in having the time to engage in other activities, such as learning to teach or pursuing other further education. However, the materiality of this is not acknowledged either by offi cial bodies, such as Higher Education Councils, which evaluate teaching and learning at HEIs. It is also not taken into account by those in more fortunate positions with low staff-student ratios, particularly those from HAIs who may take for granted that academics could have the time to pursue opportunities which would benefit their teaching.

Funding and resources are another material reality that heavily impacts on teaching and learning to teach. Earlier on in this chapter, the issue of differentiation was alluded to. In the excerpt below, the interviewee notes that if differentiation is insisted upon for a higher education system, then at least the institutions should be given the funding that they need to operate properly:

> So there is no question about the fact that this is predominantly a teaching institution, but then it should be funded so it can do the teaching properly. We can't have students coming from dysfunctional schools, being in classes where they are one in forty and one in fifty on an average. We really have to work towards this idea that students will get personal attention … So the differentiation debate for me is really to say that institutions, whatever they are and whatever their kind of mandate is, that they are funded properly to do what they are expected to do.

Another material aspect of South African tertiary education which has direct impact on learning to teach is the after-effects of merging institutions, which happened post-1994. Many of the merged institutions are still battling to deal with affects between the merged parties in faculties and disciplines, and with physical difficulties of coordinating efforts across geographically disparate campuses (Gachago et al. 2015). Some institutions have still not managed to develop an institutional identity with which all parties identify, and in others there remains a disparity regarding resources that are available for teaching at the various campuses (Jansen 2003, Kamsteeg 2008). The vice-chancellor in the interview we focused on was very aware of the influences of the merger of his institution on learning to teach:

> Well, I think that the merger of the two former technikons was a very difficult enterprise, and I think that we're still seeing difficulties that grew out of that. So just to say that we're at the point where even today we're dealing with what you might call post-merger issues, and there's a lot of emotion related to that. So that's something that we have to kind of really work at, and we also have to work at building a new institutional culture. So in other words, really getting people to go beyond the merger and kind of really saying, well, we are now a new institution, we are part of this new institution.

The materiality of the mergers also has affective consequences regarding identification with and belonging to the institution, sometimes taking up to ten years for people to feel that they belong (Gachago et al. 2015). These affective aspects would impact on teaching and learning and affect academics' motivation to take part in initiatives regarding learning to teach.

Conclusion

This chapter has considered an example of how new feminist materialisms can be put to use to intra-act with data from a project on learning to teach in higher education in South Africa. The focus of the chapter was specifically on issues of social justice in higher education and how the material-discursive affects learning to teach in relation to a continued situation of inequality in the country. In focusing on data that glowed (MacLure 2013) from a transcription of one of the eight vice-chancellors who were interviewed for the project, we attempted to show how a new feminist materialism facilitates a creative way of looking at data and hence, an affirmative ethics of potentiality. In contrast to providing a critique of how more conventional interviewees construed learning to teach in their institutions, focusing on an unusually open and response-able interviewee made it possible to consider creative and affirmative sensibilities with regard to the envisioning a response to continued inequalities and injustices in the higher education system. Importantly, the ways in which all higher education institutions are mutually entangled became evident in the interview, highlighting the inseparability of historically advantaged and disadvantaged institutions. Thus the image of discrete and independent institutions, as they were viewed by other interviewees, who largely focused on their own constraints and enablements, was rendered problematic in this interview. Responsibility not only for oneself, but for the other, was foregrounded in the interview. Secondly, the historically disadvantaged institution as an in/appropriate/d other, became seen as something to be valued in its alterity. Difference is then seen from an affirmative position, rather than being pathologised. The response-ability and accountability regarding what really matters, the conviction that he was making a difference to an institution that needed his leadership and his attentiveness to matter that matters all emanated from what he expressed in the interview. The dualism between teacher and learner was also challenged by the interviewee in his view of academics as lifelong learners – as partners learning alongside students. The impact of the material was also highlighted in the interview with funding, physical infrastructure, student-staff ratios and the aftermath of merging all intra-acting with and affecting learning to teach.

All in all, the interview provides an ethical response to issues of social justice and inequality which could motivate others to think more carefully about the entanglements of institutions and consider novel ways of engaging and enacting change in the material-discursive interstices of learning to teach as an educational practice in higher education.

References

Barad, K. (2007), Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning, Duke University Press, Durham and London.

Barad, K. (2012), 'On touching – The inhuman that therefore I am', Differences, vol. 23, no. 3, pp. 206–23.

Barad, K. (2014a), 'Diffracting diffraction: Cutting together-apart', Parallax, vol. 20, no. 3, pp. 168–87.

Barad, K. (2014b), 'On touching – The inhuman that therefore I am', in S. Witzgall & K. Stakemeier (eds), Power of material/politics of materiality, Diaphanes eText, Zurich-Berlin.

Boughey, C. & McKenna, S. (2011), A meta-analysis of teaching and learning at five historically disadvantaged universities, Council on Higher Education, Pretoria.

Bozalek, V. (2011), 'Acknowledging privilege through encounters with difference: Participatory learning and action techniques for decolonising methodologies in Southern contexts', International Journal of Social Research Methodology, vol. 14, no. 6, pp. 469–84.

Bozalek, V. (in press), 'Socially just pedagogies', in R. Braidotti & M. Hlavajova (eds), Posthuman glossary, Bloomsbury, London.

Bozalek, V. & Boughey, C. (2012), '(Mis)framing Higher Education in South Africa', Social Policy & Administration, vol. 46, no. 6, pp. 688–703.

Braidotti, R. (2013), The posthuman, Polity Press, Cambridge.

Breier, M. (2010), 'Dropout or stop out at the University of the Western Cape?', in M. Letseka, M. Cosser, M. Breier & M. Visser (eds), Student retention and graduate destination: Higher education and labour market access and success, Human Sciences Research Council Press, Cape Town.

Cloete, N. (2016), Free higher education. Another self-destructive South African Policy, paper published by the Centre for Higher Education Trust (CHET) in January 2016.

Coole, D. (2014), 'New materialism: The ontology and politics of materialisation', in S. Witzgall & K. Stakemeier (eds), Power of material/politics of materiality, Diaphanes eText, Zurich-Berlin.

Cooper, D. (2015), 'Social justice and South African university student enrolment data by "race", 1998–2012: From "skewed revolution" to "stalled revolution"', Higher Education Quarterly, vol. 69, no. 3, pp. 237–62.

Department of Education (DoE) (1997), White Paper 3: A programme for the transformation of higher education, Department of Education, Pretoria.

Gachago, D., Sosibo, Z. & Ivala, E. N. (2015), 'Nostalgia, anxiety and gratifi cation: Narratives of female staff in a merged higher education institution', Alternation, vol.22, no. 16, pp. 19–43.

Grosz, E. (2011), Becoming undone: Darwinian refl ections on life, politics, and art, Duke University Press, Durham.

Hultman, K. & Lenz Taguchi, H. (2010), 'Challenging anthropocentric analysis of visual data: A relational materialist methodological approach to educational research',

International Journal of Qualitative Studies in Education: QSE, vol. 23, no. 5, pp. 525–42.
Ingold, T. (2014), 'An ecology of material', in S. Witzgall & K. Stakemeier (eds), Power of material/politics of materiality, Diaphanes eText, Zurich-Berlin.
Jansen, J. (2003), 'Mergers in South African higher education: Theorising change in transitional contexts', Politikon, South African Journal of Political Studies, vol. 30, no.1, pp. 27–50.
Juelskjær M. & Schwennesen, N. (2012), 'Intra-active entanglements: An interview with Karen Barad', Kvinder, Koen og Forskning, vol. 21, nos 1–2, pp. 10–23.
Kamsteeg, F. (2008), 'In search of a merged identity: The case of multi-campus North-West University, South Africa', TD, vol. 4, no. 2, pp. 431–51.
Latour, B. (2004), 'Why has critique run out of steam? From matters of fact to matters of concern', Critical Inquiry, vol. 30, pp. 225–48.
Leibowitz, B, Bozalek, V, Winberg, C & van Schalkwyk, S 2015, 'Institutional context matters: the professional development of academics as teachers in South African higher education', Higher Education, vol. 69, no. 2, pp. 315 – 330.
Lenz Taguchi, H. (2013), 'Images of thinking in feminist materialisms: Ontological divergences and the production of researcher subjectivities', International Journal of Qualitative Studies in Education: QSE, vol. 26, no. 6, pp. 706–16.
MacLure, M. (2013), 'Classifi cation or wonder? Coding as an analytic practice in qualitative research', in R. Coleman & J. Ringrose (eds), Deleuze and research methodologies, Edinburgh University Press, Edinburgh.
MacLure, M. (2015), 'The "new materialisms": A thorn in the fl esh of critical qualitative inquiry?' in G. S. Cannella, M. S. Perez & P. A. Pasque (eds), Critical qualitative inquiry: Foundations and futures, West Coast Press, Walnut Creek, CA.
Mazzei, L. A. (2013), 'A voice without organs: Interviewing in posthumanist research', International Journal of Qualitative Studies in Education: QSE, vol. 26, no. 6, pp. 732–40.
Mazzei, L. A. (2014), 'Beyond an easy sense: A diffractive analysis', Qualitative Inquiry, vol. 20, no. 6, pp. 742–46.
Nicolson, G. (2016), 'Fees must fall: Reloaded', Daily Maverick 12 January 2016, accessed 13 January 2016, www.dailymaverick.co.za/article/2016-01-12-fees-must-fallreloaded/#.VpVX5ZN96b8
Pacini-Ketchabaw, V. (2012), 'Acting with the clock: Clocking practices in early childhood', Contemporary Issues in Early Childhood, vol. 13, no. 2, pp. 154–60.
Phillips, K. & Larson, M. L. (2013), 'The teacher–student writing conference reimaged: Entangled becoming-writing conferencing', Gender and Education, vol. 25, no. 6, pp.722–37.
South Africa.info (n. d.), accessed 14 January 2016, www.southafrica.info/about/people/population.htm#.VpYmrZN96b8
Universities South Africa (2016), Joint statement from vice chancellors, principals and rectors of universities in South Africa, accessed 13 January 2016, www.cut.ac.za/leadership/joint-statement-vice-chancellor-principals-rectors-universities-south-africa/

Young, I. M. (2011), Responsibility for Justice, Oxford University Press, Oxford.